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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,138	12/21/2001	Harry Bowers	24837/04211	5636

24024 7590 09/20/2005

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EXAMINER	
PHAM, THIERRY L	
ART UNIT	**PAPER NUMBER**
2624	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/037,138	BOWERS, HARRY	
	Examiner	Art Unit	
	Thierry L. Pham	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/25/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

- This action is responsive to the following communication: An application filed on 12/21/01.
- Claims 1-13 are pending.
- IDS filed on 3/25/02 has been considered/entered by the examiner.
- Responsive to Unsigned Declaration/Oath has been received/acknowledged and entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Hirst et al (US 5930553).

Regarding claim 13, Hirst discloses a device for calibrating (calibrating, col. 5, lines 13-15) a printer comprising of: an ink cartridge (cartridge 18, fig. 1); and a memory (memory 19, fig. 1) embedded on said ink cartridge with stored color values (calibration data and color table, fig. 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrington (US 6178007), and in view of Hirst et al (US 5930553).

Regarding claim 1, Harrington discloses a method of providing calibration data (calibration data, cols. 3-4) to a printer comprising the steps of:

- printing (printer 50, fig. 1) a set of color patches (color patches sample, abstract, col. 3, lines 5-10) from a predetermined set of input values;
- measuring color values (measuring col. 3, lines 23-25) of said color patches;
- generating calibration data (calibration data, col. 3, lines 1-18) including color values; and
- storing, in a memory (memory, col. 3, lines 3-5), said color values and the associated said predetermined color input values.

However, Harrington fails to teach and/or suggest an ink cartridge having a memory for storing color values and the associated predetermined input values.

Hirst, in the same field of endeavor for image forming apparatus, teaches an ink cartridge having a memory for storing color values and the associated predetermined input values (memory 19 of cartridge 18 for storing calibration data and color table, figs. 1-2).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made by modifying printer of Harrington to include an ink cartridge having a memory device for storing calibration data, color values, and other data as taught by Hirst because of a following reason: (•) enabling manufacturers to collect and analyze data from a recycled consumable (i.e. ink cartridge) when it is returned to the factory for refill and to provide updated printer control information to an existing product in user in the field without a service call; in other words, manufacturers can take advantage of calibration and other condition data stored on a memory embedded ink cartridge to improve future product (col. 6, lines 8-13 of Hirst).

Therefore, it would have been obvious to combine Harrington with Hirst to obtain the invention as specified in claim 1.

Regarding claim 2, Harrington further teaches the method of claim 1 wherein printing said color patches (color patches, col. 2, lines 44-50) are printed on a selected printer (printer 50, fig. 1) with a specific batch of ink (input color, col. 2, lines 19-53).

Regarding claims 4-5, Harrington further teaches the method of claim 1 wherein measuring said color values, such as tristimulus values (RGB, fig. 2), are measured with spectrophotometer and densitometer (spectrophotometer and densitometer, fig. 1).

Regarding claim 6, Harrington further teaches the method of claim 1 wherein printing said set of color patches is from a predetermined set of color inks (combination of colorants, col. 3, lines 3-17).

Regarding claim 7, Harrington further teaches the method of claim 1 wherein generating said color calibration data comprises the step of determining a color adjustment look-up table (look-up table, col. 3, lines 14-15) with the difference (col. 3, lines 25-27) value between said predetermined input values and said measure color values.

Regarding claim 8, Harrington further teaches the method of claim 7 wherein determining said color adjustment look-up table is stored on said memory (col. 3, lines 13-15).

Regarding claim 9, combinations of Harrington and Hirst further teaches a method of color calibration data on printer comprising the steps of:

- reading color values stored on a memory of an ink cartridge (ink cartridge as taught by Hirst, col. 5, lines 8-24); and
- computing a color adjustment look-up table (LUT, col. 4, lines 10-12) for specific ink cartridge and ink based on said color values (col. 6, lines 50-64).

Regarding claim 10, Harrington further teaches the method according to claim 9 wherein computing said color adjustment look-up table determines the difference between a inputted color value in said printer and said stored color values (col. 6, lines 55-64).

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al (US 6804025), and in view of Hirst et al (US 5930553).

Regarding claims 11-12, Ueda discloses a method of printing color data (printing calibration data, fig. 7) that has been calibrated from a select printer comprising:

- selecting a print substrate (type of recording medium, fig. 16);
- reading calibration data (retrieve calibration data from storage, fig. 7) stored on a memory (HDD 116, fig. 13) for said selected print substrate;
- computing a color adjustment look-up table (LUT, fig. 16) based on said calibration data;
- calibrating by printing (fig. 7) an adjusted color value that reflects an output color value equal to an input color value (step S114, fig. 8 and col. 1, lines 60-64).

However, Ueda fails to teach and/or suggest an ink cartridge having a memory for storing color values and the associated predetermined input values.

Hirst, in the same field of endeavor for image forming apparatus, teaches an ink cartridge having a memory for storing color values and the associated predetermined input values (memory 19 of cartridge 18 for storing calibration data and color table, figs. 1-2).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made by modifying printer of Ueda to include an ink cartridge having a memory device for storing calibration data, color values, and other data as taught by Hirst because of a following reason: (•) enabling manufacturers to collect and analyze data from a recycled consumable (i.e. ink cartridge) when it is returned to the factory for refill and to provide updated printer control information to an existing product in user in the field without a service call; in other words, manufacturers can take advantage of

calibration and other condition data stored on a memory embedded ink cartridge to improve future product (col. 6, lines 8-13 of Hirst).

Therefore, it would have been obvious to combine Ueda with Hirst to obtain the invention as specified in claims 11-12.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L. Pham whose telephone number is (571) 272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thierry L. Pham

GABRIEL GARCIA
PRIMARY EXAMINER